


*Methods, IAAC, Crossing*

<h2>Small Molecule X-Ray Diffraction</h2> <p><i>Diffraction Methods</i></p>	<p>Model: <i>Bruker Smart-APEX II CCD Diffractometer</i></p> <p>Unit and Room: <i>Inorg. Chemistry, basement, R.-137</i></p> <p>Responsible: <i>Dr. Nils Trapp, 203 6156</i></p> <p>Further information: <i>nothing yet</i></p>
<p>Short Description:</p> <p>CCD plate diffractometer equipped with molybdenum sealed-tube source and focussing collimator. High contrast and fast readout. Allows fast routine structure determination. Data reduction software is ideally suited for superstructure and twinning problems..  </p>	<p>Picture of the Equipment</p> 
<p>Available Experiments/Techniques:</p> <p>Single crystal X-Ray diffraction (routine)</p> <p>Single crystal X-Ray diffraction (high angle&amp;charge density)</p> <p>Fast unit cell determination</p>	
<p>Special Equipment:</p> <p>Equipped with an Oxford Cryostream 600 crystal cooling device (100 - 350K). Custom apparatus for low-temperature (-120°C to RT) crystal mounting under inert conditions is available.</p> <p>Binocular polarizing microscope with digital camera is available for crystal mounting/evaluation.</p>	
<p>Measurements on the equipment are currently done by:</p>	<p><input type="checkbox"/> Students</p> <p><input type="checkbox"/> Students after Introduction</p> <p><input checked="" type="checkbox"/> Students after extensive training</p> <p><input checked="" type="checkbox"/> Trained scientific service personal</p>
<p>Recent Publications, where this instrument was important (optional): Give citation</p>	<p>Angew. Chem. 2009,48, 1133-1137.</p> <p>Chem. Eur. J. 2009, 15, 1966-1976.</p>
<p>Typical problems that may be solved with this instrument:</p>	<ul style="list-style-type: none"> <li>- <i>Structure determination in the solid state</i></li> <li>- <i>Bonding information</i></li> <li>- <i>Twinned crystals</i></li> <li>- <i>Fast crystal screening</i></li> </ul>